

MARYLAND HISTORICAL TRUST
DETERMINATION OF ELIGIBILITY FORM

NR Eligible: yes ☐
no ☒

Property Name: SHA Bridge No. 1006500, MD 140 over Monocacy River Inventory Number: F-6-119
Address: MD 140 over the Monocacy River, Frederick and Carroll Counties, MD Historic district: ☐ yes ☒ no
City: Bridgeport Zip Code: _____ County: Frederick
USGS Quadrangle(s): Taneytown
Property Owner: MD SHA Tax Account ID Number: _____
Tax Map Parcel Number(s): _____ Tax Map Number: _____
Project: Replacement of SHA Bridge No. 1006500, MD 140 over Mono Agency: FHWA/SHA
Agency Prepared By: MD SHA
Preparer's Name: Anne E. Bruder Architectural Historian Date Prepared: 03/10/2011
Documentation is presented in: Project Review and Compliance Files
Preparer's Eligibility Recommendation: _____ Eligibility recommended ☒ Eligibility not recommended
Criteria: ☐ A ☐ B ☐ C ☐ D Considerations: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G
Complete if the property is a contributing or non-contributing resource to a NR district/property:
Name of the District/Property: _____
Inventory Number: _____ Eligible: ☐ yes ☐ no Listed: ☐ yes ☐ no
Site visit by MHT Staff ☐ yes ☒ no Name: _____ Date: _____

Description of Property and Justification: *(Please attach map and photo)*

On February 27, 2001, the Maryland State Highway Administration (SHA) determined SHA Bridge No. 1006500, a 1925 3-spandrel concrete arch bridge to be eligible for the National Register of Historic Places (NRHP). However, inspections in 2004 led to the decision to perform emergency repairs including removing the existing parapets at three locations and replacing with temporary pre-cast "F" shape concrete barriers and making repairs to the deck and spandrel walls. The bridge presently has iron tierods that extend through the spandrel walls. The original parapet has been encased with guardrails on both sides and the guardrails are bolted through the concrete parapet.

In July 2004, SHA performed these emergency repairs to the bridge which resulted in the determination that the proposed repairs would be adverse to the historic qualities of the bridge because each was an unsympathetic alteration, and SHA determined that the condition of the bridge was so poor that it would require total replacement of the structure.

The work was completed in 2004. SHA has determined that the repairs have made SHA Bridge No. 1006500 not eligible for the NRHP, Criterion C (architecture and engineering). Research conducted for this project did not identify any new information under NRHP Criteria A (events) or B (engineering) and the bridge is not eligible for the NRHP under either Criterion. Criterion D was

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____ Eligibility not recommended ☒
Criteria: ☐ A ☐ B ☐ C ☐ D Considerations: ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F ☐ G

MHT Comments:

Jim Talcott
Reviewer, Office of Preservation Services

B. Kuntz
Reviewer, National Register Program

6/16/2011
Date

6/16/11
Date

201102278

NR-ELIGIBILITY REVIEW FORM

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SHA Bridge No. 1006500, MD 140 over Monocacy River

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not included in this study.

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended _____

Eligibility not recommended _____

Criteria: ___ A ___ B ___ C ___ D Considerations: ___ A ___ B ___ C ___ D ___ E ___ F ___ G

MHT Comments:

Reviewer, Office of Preservation Services

Date

Reviewer, National Register Program

Date

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: F-6-119

Name: MD 140 over Monocacy River

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridged received the following determination of eligibly.

MARYLAND HISTORICAL TRUST	
Eligibility Recommended <u>X</u>	Eligibility Not Recommended _____
Criteria: <u> </u> A <u> </u> B <u> </u> C <u> </u> D Considerations: <u> </u> A <u> </u> B <u> </u> C <u> </u> D <u> </u> E <u> </u> F <u> </u> G <u> </u> None	
Comments: _____	
Reviewer, OPS: <u>Anne E. Bruder</u>	Date: <u>3 April 2001</u>
Reviewer, NR Program: <u>Peter E. Kurtze</u>	Date: <u>3 April 2001</u>

SHA Bridge No. 100650 Name: MD 140 over the Monocacy River

Location:

Street/Road Name and Number: MD 140 (Taneytown Pike)

City/Town: Bridgeport Vicinity X

County: Frederick

Ownership: X State County Municipal Other

This bridge projects over: Road Railway X Water Land

Is the bridge located within a designated district: yes X no

 NR listed district NR determined eligible district

 locally designated other

Name of District

Bridge Type:

 Timber Bridge

 Beam Bridge Truss-Covered Trestle

 Timber-and-Concrete

 Stone Arch

 Metal Truss

 Movable Bridge

 Swing Bascule Single Leaf Bascule Multiple Leaf

 Vertical Lift Retractable Pontoon

 Metal Girder

 Rolled Girder Rolled Girder Concrete Encased

 Plate Girder Plate Girder Concrete Encased

 Metal Suspension

 Metal Arch

 Metal Cantilever

X Concrete

X Concrete Arch Concrete Slab Concrete Beam Rigid Frame

 Other Type Name

Describe Setting:

Bridge 10065⁰ carries MD 140 over Monocacy River in Frederick County. MD 140 runs east-west over the southern flowing Monocacy River. The area immediately adjacent to the bridge has light residential development.

Describe Superstructure and Substructure:

Bridge 10065⁰ is a triple-span filled concrete arch. The length of the bridge is 168 feet. The first and third spans have clear spans of 50 feet while the middle span has a clear span of 56 feet. The rise is approximately 14 feet high from springline to crown. The spandrel walls are approximately 13 feet high and 8 feet from the top of the pier to the crown. The abutments are approximately 13 feet high and 24 feet wide. The 2 identical piers are 4 feet 10 inches wide with a 6-foot nose cone. There is a clear roadway width of 24 feet, with an overall width of 27 feet 2 inches. According to a 1996 inspection report, the bridge is in satisfactory condition with a sufficiency rating of 76.2.

The parapets are original. The builders used a closed parapet design. This reinforced concrete railing consists of vertical posts securely fastened by dowels to the structure, horizontal rails, and solid panels that fill the space between posts and the railings. The panels may be precast, and the posts and rails were built in place. Expansion joints separate the panels.

Discuss Major Alterations:

There have been no major alterations to this bridge. In 1980 tie bolts and scuppers were added to the bridge.

When Built: 1925

Why Built: Replacement of dangerous one-lane bridges.

Who Built: State Roads Commission

Who Designed: State Roads Commission

Why Altered: N/A

Was this bridge built as part of an organized bridge building campaign?

No, this bridge was not built as part of an organized bridge building campaign.

Surveyor Analysis:

This bridge may have NR significance for association with:

☒ **A** Events ☐ **Person**

☒ **C** Engineering/Architectural

This bridge was determined eligible by the Interagency Review Committee in February 1996.

Was this bridge constructed in response to significant events in Maryland or local history?

Between 1924 and 1926 the state was confined to completing the gaps in important arteries out of Frederick County. The dangerous one-way bridges on the main highways in the county were rapidly being replaced with new structures. In 1925 a single lane covered bridge was replaced by Bridge 10065 and the old road was relocated upstream by approximately one-quarter of a mile.

Is the bridge located in an area that may be eligible for historic designation and would the bridge add to or detract from historic and visual character of the possible district?

This bridge is not located in an area that is eligible for historic designation.

Is the bridge a significant example of its type?

Yes this bridge is a significant example of the State Roads Commission's efforts from 1910 until 1945 to eliminate dangerous geometric alignments. The development of standardized plans helped to facilitate this process of standardizing lane widths and alignments.

Does the bridge retain integrity of the important elements described in the Context Addendum?

Yes this bridge retains integrity of its character defining elements. Although some repairs were made to the wingwalls, the spandrel walls, the parapets, and the abutments, all are original and have only moderate deterioration.

Should this bridge be given further study before significance analysis is made?

No this bridge should not be given further study.

Bibliography:

County inspection/bridge files _____ SHA inspection/bridge files X

Other (list):

Surveyor:

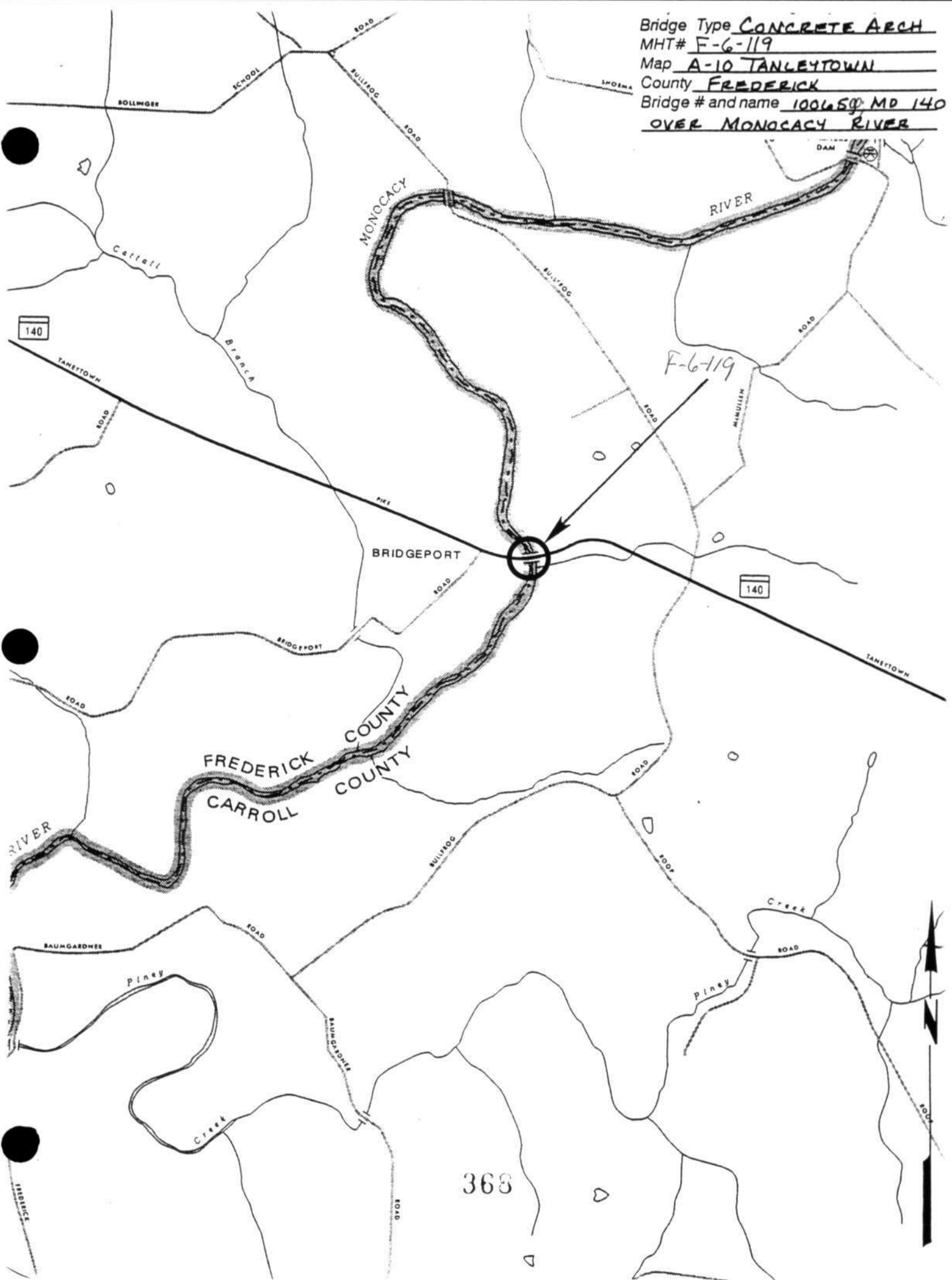
Name: Stacie Y. Webb **Date:** February 1996

Organization: State Highway Admin. **Telephone:** (410) 545-8559

Address: 707 N. Calvert Street, Baltimore, Maryland

Edited by P.A.C. Spero & Company, December 1997.

Bridge Type CONCRETE ARCH
MHT# F-6-119
Map A-10 TANLETTOWN
County FREDERICK
Bridge # and name 100650 MD 140
OVER MONOCACY RIVER





Inventory # F-6-119

Name 100650 MD 140 OVER MONOCACY RIVER

County/State FREDERICK COUNTY/MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH EAST

Number 1 of 34 4



Inventory # F-6-119

Name ~~1001500~~ MD140 OVER MONCACY RIVER

County/State FREDERICK COUNTY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING NORTH

2 4
Number 15 of 34



Inventory # F-6-119

Name 1006500 MD/MD OVER MONOCACY RIVER

County/State FREDERICK COUNTY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH WEST

3
Number 16 of 34 4



Inventory # F-6-119

Name 100650 MD140 OVER MONOCACY RIVER

County/State FREDERICK COUNTY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING SOUTH

Number 4 of 34 4

Maryland Historical Trust

Maryland Inventory of Historic Properties Form

Inventory No. F-6-119

1. Name of Property

historic SHA Bridge No. 1006500 over the Monocacy River
other MD 140 over the Monocacy River

2. Location

street and number MD 140 (Emmitsburg-Taneytown Pike) not for publication
city, town ~~Bridgeport~~ Bridgeport vicinity
county Frederick and Carroll

3. Owner of Property

(give names and mailing addresses of all owners)

name Maryland State Highway Administration
street and number 707 N. Calvert St. telephone 410-545-8501
city, town Baltimore state MD zip code 21202

4. Location of Legal Description

courthouse, registry of deeds, etc. Maryland State Highway Administration liber N/A folio N/A
city, town Baltimore tax map N/A tax parcel N/A tax ID number N/A

5. Primary Location of Additional Data

- ☐ Contributing Resource in National Register District
☐ Contributing Resource in Local Historic District
☒ Determined Eligible for the National Register/Maryland Register
☐ Determined Ineligible for the National Register/Maryland Register
☐ Recorded by HABS/HAER
☐ Historic Structure Report or Research Report at MHT
☐ Other: _____

6. Classification

Category	Ownership	Current Function	Resource Count
<input type="checkbox"/> district	<input checked="" type="checkbox"/> public	<input type="checkbox"/> agriculture	Contributing
<input type="checkbox"/> building(s)	<input type="checkbox"/> private	<input type="checkbox"/> landscape	Noncontributing
<input checked="" type="checkbox"/> structure	<input type="checkbox"/> both	<input type="checkbox"/> commerce/trade	1
<input type="checkbox"/> site		<input type="checkbox"/> defense	
<input type="checkbox"/> object		<input type="checkbox"/> domestic	
		<input type="checkbox"/> education	
		<input type="checkbox"/> funerary	
		<input type="checkbox"/> government	
		<input type="checkbox"/> health care	
		<input type="checkbox"/> industry	
		<input type="checkbox"/> recreation/culture	
		<input type="checkbox"/> religion	
		<input type="checkbox"/> social	
		<input checked="" type="checkbox"/> transportation	
		<input type="checkbox"/> work in progress	
		<input type="checkbox"/> unknown	
		<input type="checkbox"/> vacant/not in use	
		<input type="checkbox"/> other:	

Number of Contributing Resources previously listed in the Inventory

7. Description

Inventory No. F-6-119

Condition

<input type="checkbox"/> excellent	<input type="checkbox"/> deteriorated
<input type="checkbox"/> good	<input type="checkbox"/> ruins
<input checked="" type="checkbox"/> fair	<input checked="" type="checkbox"/> altered

Prepare both a one paragraph summary and a comprehensive description of the resource and its various elements as it exists today.

Capsule Summary:

Maryland State Highway Administration (SHA) Bridge No. 1006500 carries MD 140 (Emmitsburg-Taneytown Pike) east/west across the Monocacy River at the border of Carroll and Frederick Counties in the vicinity of Bridgeport, Frederick County, Maryland. Bridge No. 1006500 is a triple-span, filled concrete-arch bridge with closed parapet walls, has a span length of 168 feet, and carries two traffic lanes. The central arch has a span of 50 feet, and the first and third arches each have a span of 56 feet. The spans rise approximately 14 feet from the springline to the crown; the spandrel walls are approximately 13 feet high, and 8 feet from the top of the pier to the crown; the abutments are approximately 13 feet high and 24 feet wide; and, the two identical piers 4 feet, 10 inches wide with a 6-foot bullnose.

The Maryland State Roads Commission constructed Bridge No. 1006500 in 1925 as a result of the realignment of MD 140 to provide safer road geometrics to the burgeoning population of early-twentieth century motorists. Bridge No. 1006500 replaced the former, single-lane, wooden, covered bridge that was located approximately 50 feet downstream, which was built by Louis Wernwag in 1849 and remained in use until 1932. The remnant of a stone abutment from Wernwag's timber bridge over the Monocacy River in Bridgeport is located on the river's west bank; it is adjacent to a 1942 USGS stream gauge monitoring station, which is still in active use.

Bridge No. 1006500 was formally determined eligible for listing in the National Register of Historic Places under Criterion A and Criterion C by the Interagency Historic Highway Bridge Inventory Committee in February 1996. The bridge retains its character-defining elements, including the wingwalls, spandrel walls, parapets, and abutments, despite undergoing remedial activities in 1981 that added scuppers and tie bolts to the spandrel walls. Emergency repairs in 2004 rehabilitated major structural components of the bridge, including the deteriorating spandrel walls while replacing portions of the parapets with jersey barriers.

8. Significance

Inventory No. F-6-119

Period	Areas of Significance	Check and justify below		
<input type="checkbox"/> 1600-1699	<input type="checkbox"/> agriculture	<input type="checkbox"/> economics	<input type="checkbox"/> health/medicine	<input type="checkbox"/> performing arts
<input type="checkbox"/> 1700-1799	<input type="checkbox"/> archeology	<input type="checkbox"/> education	<input type="checkbox"/> industry	<input type="checkbox"/> philosophy
<input type="checkbox"/> 1800-1899	<input type="checkbox"/> architecture	<input checked="" type="checkbox"/> engineering	<input type="checkbox"/> invention	<input type="checkbox"/> politics/government
<input checked="" type="checkbox"/> 1900-1999	<input type="checkbox"/> art	<input type="checkbox"/> entertainment/	<input type="checkbox"/> landscape architecture	<input type="checkbox"/> religion
<input type="checkbox"/> 2000-	<input type="checkbox"/> commerce	<input type="checkbox"/> recreation	<input type="checkbox"/> law	<input type="checkbox"/> science
	<input type="checkbox"/> communications	<input type="checkbox"/> ethnic heritage	<input type="checkbox"/> literature	<input type="checkbox"/> social history
	<input type="checkbox"/> community planning	<input type="checkbox"/> exploration/	<input type="checkbox"/> maritime history	<input checked="" type="checkbox"/> transportation
	<input type="checkbox"/> conservation	<input type="checkbox"/> settlement	<input type="checkbox"/> military	<input type="checkbox"/> other: _____

Specific dates 1925-2004

Architect/Builder State Roads Commission

Construction dates 1925

Evaluation for:

☒ National Register ☐ Maryland Register ☐ not evaluated

Prepare a one-paragraph summary statement of significance addressing applicable criteria, followed by a narrative discussion of the history of the resource and its context. (For compliance projects, complete evaluation on a DOE Form – see manual.)

Description:

Maryland State Highway Administration (SHA) Bridge No. 1006500 carries MD 140 (Emmitsburg-Taneytown Pike) east/west across the Monocacy River at the border of Carroll and Frederick Counties in the vicinity of Bridgeport, Frederick County, Maryland. The Monocacy River flows south into the Potomac River in Frederick County. The bridge was previously identified in the Maryland Inventory of Historic Properties (MIHP) and SHA Historic Bridge Inventory as MIHP No. F-6-119 in February 1996 by the SHA.¹

The area surrounding the bridge has not been subjected to heavy residential or commercial types of development. Nineteenth-century farmsteads are located immediately northeast and northwest of the bridge. Tracts of wooded and hilly terrain are located adjacent to the north and south sides of MD 140 just east of the east approach to the bridge, and open, gently sloping, grassy land is located west of the west approach to the bridge.

The Interagency Historic Highway Bridge Inventory Committee determined Bridge No. 1006500 eligible for listing in the National Register of Historic Places under Criterion A and Criterion C in February 1996. The bridge is eligible under Criterion A for significant local events, because it was constructed during a statewide effort by the State Roads Commission from 1924 to 1926 to improve major transportation arteries and replace dangerous, one-lane bridges with new, two-lane structures.² The bridge is a significant example of an early-twentieth century type of a State Roads Commission reinforced concrete-arch bridge that retains integrity of its character defining elements, despite remedial repairs; therefore, it is eligible under Criterion C. On April 3, 2001; the MHT accepted the Historic Bridge Inventory documentation and eligibility determination for Bridge No. 1006500.³

Historic Context:

Settlement and Transportation:

Frederick County (originally a part of Charles County) was laid out in 1745 and officially created on June 11, 1748 by an act of the General Assembly. It was named after Frederick, the sixth and last Lord Baltimore. Frederick County initially encompassed all of what is today occupied by Carroll, Montgomery, Frederick, Washington, Allegany, and Garrett Counties and the District of Columbia. German immigrants from southern Pennsylvania settled Frederick; and they began to settle in the Monocacy Valley as early as 1733. On September 6, 1776, the Colonial Convention divided parts of Frederick County into Washington and Montgomery Counties as a result of the rapid settlement of Frederick County. The area's growth was due in part to the fertile and well-watered limestone soils of

¹ MIHP No. F-6-119 Form, on file at the Maryland State Highway Administration, Baltimore, MD.

² *Seventeenth, Eighteenth and Nineteenth Annual Reports of the State Roads Commission for the Years 1924, 1925 and 1926*: 48-49, 59-63.

³ MIHP Form No. F-6-119, on file at the Maryland State Highway Administration, Baltimore, MD.

Maryland Historical Trust

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the Monocacy Valley and Middletown Valley, which were conducive to the cultivation of crops and raising livestock. During the nineteenth century, Frederick County was the most agriculturally productive county in the state.⁴

Carroll County was formed out of Baltimore and Frederick Counties during 1835. The Monocacy River forms the eastern border of Frederick County and the western border of Carroll County.⁵ The Calvert family divided Carroll County into tracts of land, which were then settled by colonists during the second half of the seventeenth century. Settlers paid an annual rent to the land office, and in turn the Calverts submitted the payment to the proprietary government in England.⁶

The Emmitsburg-Taneytown Pike connected Emmitsburg and Taneytown, which were established during the late-eighteenth century and were heavily populated by Pennsylvania German immigrants. Emmitsburg in Frederick County was established in 1786, while Taneytown in Carroll County was established in 1762. Moreover, as early as the 1740s, a section of the turnpike between Baltimore, Maryland, and Gettysburg, Pennsylvania, facilitated the movement of agricultural commerce between farmers in south-central Pennsylvania and the port of Baltimore.⁷

The village of Bridgeport in Frederick County is located approximately halfway between Emmitsburg and Taneytown along the north side of the Emmitsburg-Taneytown Turnpike, just west of the Monocacy River. Bridgeport was established during the early-nineteenth century at the border of Frederick and Carroll Counties. Bridgeport includes only a few early-to-mid-nineteenth century buildings. The village served as a way station between Taneytown and Emmitsburg for travelers along the turnpike. A tavern, post office, general store, and blacksmith's shop comprised the commercial development intermixed with the rural agrarian lifestyle of Bridgeport during the nineteenth century.⁸ Bridgeport's inhabitants included a postmaster, carpenters, blacksmiths, millers, merchants, and wool manufacturers.⁹ A local citizen of Taneytown reported that before the formation of Carroll County, an annual muster was held at Bridgeport, which required all male citizens between the ages of 18 and 45 to report for muster. The men came armed with various types of weapons, including sticks, fence stakes, and primarily corn stalks; as a result, they were nicknamed the "Corn Stalk Brigade."¹⁰

Colonial settlers in Maryland traveled primarily via waterways in navigable vessels or by fording streams and rivers and following Native American trails, such as the First Old Monocacy Road (Ogles Road) and Farquhar Path, both of which encompass portions of present-day MD 140. Pennsylvania Germans used Native American paths and trails during their migration into Maryland throughout the eighteenth century. The rise of turnpikes in Baltimore and Frederick Counties occurred in the late-eighteenth century after the Revolutionary War and intensified during the nineteenth century. As a result, settlers began a westward migration in horse-drawn wagons, necessitating the need for bridges along roads to cross over waterways.¹¹ Turnpike companies in Maryland were chartered by special acts of the Maryland legislature, and operated either by the county or private companies. The turnpike companies hired bridge builders to construct masonry and timber crossings along their roads.¹² In 1804, the citizens of Frederick County argued that converting the road from Frederick to Baltimore into a turnpike would be most beneficial to the farmers.¹³

The Emmitsburg-Taneytown Turnpike was an extension of the Westminster Branch of the Baltimore and Reisterstown Turnpike, which was incorporated in 1805. It linked the outlying rural regions surrounding Emmitsburg, Taneytown, and Westminster to the

⁴ Scharf 1882: 358-362.

⁵ Ibid: 362.

⁶ Scharf 1882: 588-594; Getty 1994: 36-40; Leviness 1958: 9.

⁷ Ibid.

⁸ MIHP Form No. F-6-119, on file at the Maryland State Highway Administration, Baltimore, MD.

⁹ Scharf 1882: 594-595.

¹⁰ Getty 1994: 9.

¹¹ Ibid: 32-35.

¹² Legler and Highsmith 2002: 17-18.

¹³ Williams and McKinsey 1910: 171.

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commercial and industrial hub of Baltimore City.¹⁴ By 1858, the turnpike ran through the village of Bridgeport, and the covered bridge built by Wernwag provided a crossing over the Monocacy River.¹⁵ The turnpike road had been established by an act of the Maryland General Assembly in December 1791, and the turnpike company began operations as early as 1805. During the 1826 session, the Frederick County Levy Court was authorized to "levy a sum of money, and rebuild a Bridge, over the Monocacy, on the road leading from Taney-town to Emmitsburg in said county." Evidently a bridge had been built in 1810, but it was replaced in 1827. The turnpike company was rechartered in 1847, but the bridge is not mentioned again in any of the session laws.¹⁶

The rise of the automobile during the early-twentieth century increased traffic in urban and rural locales, causing excessive damage to the turnpikes and to improved state and county roads paved with macadam. As a result, the State Roads Commission (SRC) ultimately replaced the various dirt, gravel, sand, and shell roadbeds of the turnpikes. Similarly, the SRC quickly replaced the nineteenth-century timber bridges during the early-twentieth century with more rigid and sturdy concrete bridge designs. The SRC evolved from the Highway Division of the MGS during the early years of the twentieth century and was formally established in 1908 to maintain and construct state roads and bridges in Maryland.¹⁷ In response to ongoing complaints and concerns voiced by local residents regarding road improvement of the turnpikes and for the elimination of tollgates during the nineteenth century, private toll roads and turnpikes, such as the Baltimore and Reisterstown Turnpike, were taken over by the SRC in 1915. Furthermore, the Good Roads Act of 1916 provided federal funding for state road improvements.

The Emmitsburg-Taneytown Turnpike was eventually realigned by the state to provide safer road geometrics for the increasing number of motorists traveling between Emmitsburg, Taneytown, Westminster, and Baltimore; subsequently, the road was renamed MD Route 140. A 1909 state road map of Maryland reveals that the present-day, improved, state road alignment of MD 140 stopped at Taneytown and did not yet extend to Emmitsburg.¹⁸ Between 1916 and 1919, the turnpike between Westminster and Emmitsburg was improved and macadamized under the State Roads Act, and a stretch of roadway over three miles between Taneytown and Bridgeport consisted of a 14-foot-wide concrete roadbed.¹⁹ The improved alignment of MD 140 from Westminster to Emmitsburg during the first quarter of the twentieth century resulted in the abandonment of the former covered bridge at the Monocacy crossing in Bridgeport, which was replaced by the current, triple-span, filled, concrete-arch bridge that was constructed in 1925. The concrete bridge is located about 50 feet north of the former covered bridge crossing.²⁰

The road trace from the former alignment of the Emmitsburg-Taneytown Turnpike is visible on the west bank of the Monocacy River. It is a grass-covered dirt road that undulates from the westbound lane of MD 140 in a southeasterly direction through a sparsely wooded area toward a rise on the edge of the west bank of the river, ending where the USGS stream gauge monitoring station and stone abutment ruin are located. The alignment is defined and highly visible because it remains in use as a service road for the stream gauge monitoring station. The former road alignment is not discernable on the east bank of the river, however.

Early Twentieth-Century Concrete Bridges:

Early concrete-arch bridges followed the traditional designs of stone-arch bridges. The burgeoning automobile and truck traffic during the early-twentieth century caused excessive strain on existing early, single-lane, timber bridges and was the impetus for the

¹⁴ Hollifield 1978: 1-2, 32-40; Melville 2003: 1-3.

¹⁵ MIHP No. F-6-89 Form, available via www.mdihp.net, accessed February 2007.

¹⁶ Archives of Maryland Online. Laws of Maryland 1785-1791, Vol. 204, Page 673; Chap. LXXXII; Session Laws, 1810 Session, Vol. 599, Page 79, Chap. CXXIV, [n.p.]; Session Laws, 1826 Session, Vol. 437, Page 128, Passed March 3, 1827 (*sic*). This is probably the authorization for Wernwag's covered bridge. Session Laws, 1846 Session, Vol. 242 [n.p.].

¹⁷ Hollifield 1978: 1-11; P.A.C. Spero & Company et al. 1995:27-29.

¹⁸ Leviness 1958.

¹⁹ *Ninth, Tenth, Eleventh and Twelfth Annual Reports of the State Roads Commission for the Years 1916, 1917, 1918 and 1919*: 23-24.

²⁰ Boone 2004: 123; Hollifield 1978: 1-11, 32-40; Legler and Highsmith 2002: 22; P.A.C. Spero & Company et al. 1995:29.

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development of more cost-efficient and stronger bridge designs.²¹ The construction of reinforced concrete bridges in Maryland proliferated after the formation of the SRC in 1908 and the federally funded Goods Roads Act in 1916, resulting in statewide improvement of roads and bridges. Smaller metal truss and timber bridges were quickly replaced by the more durable concrete bridge designs. Unreinforced concrete was applied to arch bridge designs before the widespread use of reinforced concrete in America. Reinforced concrete was also known as "Ferro-Concrete" or "Armored Concrete." In 1903, the Engineer of Baltimore County built the first reinforced concrete bridge in Maryland. It was located near Sherwood Station to carry York Road over a stream in Cockeysville, Baltimore County. The debut of the reinforced concrete bridge prompted a trend in the statewide construction of concrete bridges and culverts. Reinforced concrete bridges were widely popular by 1930.²²

Reinforced concrete was developed and extensively experimented with in the late-nineteenth century by American and European engineers. An American inventor, Thaddeus Hyatt, patented the product in 1878. Standardization ended Maryland's traditional system of individual petitions for roads and bridges. Standardization of bridge plans was first utilized for railroads during the nineteenth century, and became commonly used in Maryland for the construction of reinforced concrete bridges and culverts between 1900 and 1960. In 1909, the SRC drafted the first set of standardized bridge plans for a variety of reinforced concrete beam, slab, and girder bridges. Beam and slab designs were utilized more often than arch designs during the early-twentieth century, with arch designs selected when aesthetics were favored and site conditions were conducive. Concrete bridges were sometimes embellished with stone veneer or the concrete was scored to replicate the appearance of stone. Concrete-arch bridges are classified into four groups depending on the method in which the dead load is supported by the structure: filled spandrel, closed spandrel, open spandrel, and through arches.²³

In the decades following the advent of the first standardized plans, a full series of plans and specifications was prepared for concrete bridges and culverts ranging in span length from six feet to 42 feet. The SRC sent resident engineers throughout Maryland to inspect old bridge crossings to assess the site conditions for the installation of a new standardized bridge; separate designs were prepared for any spans exceeding 36 feet. During this time, a variety of both non-standardized and standardized concrete bridges were built, including small and long spans and moveable bridge designs. Several bridge-building firms specialized in their own concrete bridge designs, such as the concrete-arch bridges designed by Daniel B. Luten's company, which were constructed throughout Maryland during the early-twentieth century. Luten patented over 30 reinforced, concrete-arch bridge designs. The City Beautiful Movement of the early-twentieth century provided the impetus for Baltimore City to construct several major open-spandrel, ribbed, concrete-arch bridges as well as more modest, simply ornamented, concrete bridges at crossings along scenic avenues and boulevards, such as Clifton Avenue, Edmondson Avenue, and Loch Raven Boulevard.²⁴ Modern technological advances in the use of concrete and steel have resulted in greater flexibility in bridge engineering and innovations in bridge designs. The concrete arch style is not frequently used in Maryland in the early twenty-first century, and the examples from the early twentieth century have consequently become more important.

²¹ Leviness 1958: 132; *Seventeenth, Eighteenth and Nineteenth Annual Reports of the State Roads Commission for the Years 1924, 1925 and 1926*: 49, 59-63.

²² Legler and Highsmith 2002: 22; P.A.C. Spero & Company et al. 1995:31-34, 152-157, 175-176.

²³ P.A.C. Spero & Company et al. 1995:31-34, 152-157, 175, 182.

²⁴ *Ibid*:31-34, 158-159, 178-179.

9. Major Bibliographical References

Inventory No. F-6-119

Please see attached bibliography.

10. Geographical Data

Acreage of surveyed property N/A
Acreage of historical setting N/A
Quadrangle name Taneytown

Quadrangle scale: 1:24,000 (see attached map)

Verbal boundary description and justification

As shown on Frederick County Tax Map 16 and Carroll County Tax Map 18 showing the MD 140 right-of-way: two-lane bridge that spans the Monocacy River, carrying MD 140 between Frederick and Carroll Counties.

11. Form Prepared by

name/title	Stacey D. Streett and Anne Bruder		
organization	Maryland State Highway Administration	date	March 2009
street & number	707 N. Calvert St.	telephone	410-545-8559
city or town	Baltimore	state	MD

The Maryland Inventory of Historic Properties was officially created by an Act of the Maryland Legislature to be found in the Annotated Code of Maryland, Article 41, Section 181 KA, 1974 supplement.

The survey and inventory are being prepared for information and record purposes only and do not constitute any infringement of individual property rights.

return to: Maryland Historical Trust
Maryland Department of Planning
100 Community Place
Crownsville, MD 21032-2023
410-514-7600

Maryland Historical Trust

Maryland Inventory of Historic Properties Form

Inventory No. F-6-119

Name MD 140 Bridge No. 10065 over the Monocacy River
Continuation Sheet

Number 8 Page 1

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Maryland Historical Trust

Maryland Inventory of Historic Properties Form

Inventory No. F-6-119

Name MD 140 Bridge No. 10065 over the Monocacy River
Continuation Sheet

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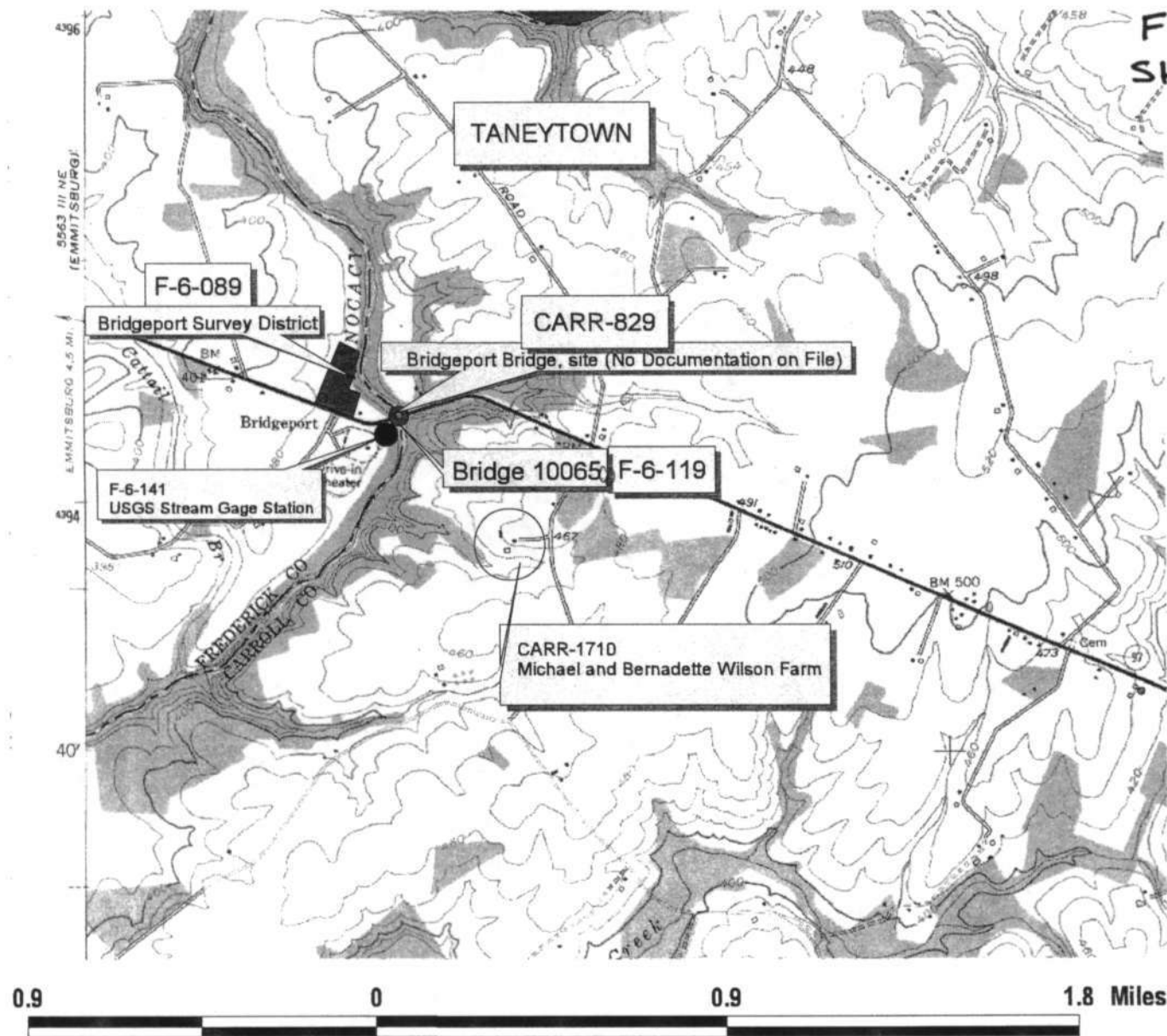
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Location Map

USGS Taneytown Quad

1:24,000

F-6-119
SHA BRIDGE No. 1006500



- Mhtihpcr.shp
- Mhtihpfr.shp
- Maryland Historical Trust Easements
- National Register of Historic Places
- USGS Topo Quad Index
- County





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F-6-119

MD 140 Bridge No. 10065⁰⁰ over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

East Approach ~~over~~ MD 140, View SW

1/27



F-6-119

MD 140 Bridge No. 1006500 over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

West Approach on MD 140, View NE

2/27



F-6-119

MD 140 Bridge No. 1006500 over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

North Elevation, view SW from East bank.

3/27



F-6-119

MD 140 Bridge No. 10065⁰⁰ over the Monocacy River
Frederick County, MD
Stacey Street

3/05/07

MD SHPO

Tie Bolts on East side of North Elevation
and profile of Bullnoses on piers

4/27



F-6-119

MD 140 Bridge No. 1006500 over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

North Elevation, View SE from West bank

5/27



F-6-119

MD 140 Bridge No. 1006500 over the Monocacy River
Frederick County, MD

Stacey Streett

3/05/07

MD SHPO

Tie Bolts on West Side of North Elevation
and Profile of Bullnoses on piers

6/27



F-6 - 119

MD 140 Bridge No. 1006500 over the Monocacy River
Frederick County, MD

Stacey Street

3/05/07

MD SHPO

North Elevation, View from West bank
looking East

7/27



F-6-119

MD 140 Bridge No. 1006500 over the Monocacy River
Frederick County, MD

Stacey Street

3/05/87

MD SHPO

Concrete Parapet and modern guardrail on
North Elevation, view East

8/27



F-6-119

MD 140 Bridge No. 1006500 over the Monocacy River
Frederick County, MD

Stacey Street

3/05/07

MD SHPO

South Elevation, view NW from East bank
9/27



F-6-119

MD 140 Bridge No. 100650 over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

Bullnoses and Arches on South Elevation,
View from East Bank

10/27



F-6-119

MD 140 Bridge No. 100650 over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

Close-up of stone rubble debris on East

Bank from earlier bridge abutment

11/27



F-6-119

MD 140 Bridge No. 10065⁰⁰ over the Monocacy River
Frederick County, MD

Stacey Street

3/05/07

MD SHPO

Pile of stone rubble debris on East Bank
(South of Bridge No. 10065), from earlier
bridge abutment

12/27



F-6-119

MD 140 Bridge No. 10065 over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

View west from East bank (south of
Bridge No. 10065) of extant stone bridge
abutment from earlier bridge and the 1942
USGS Stream Gauge Station

13/27



F-6-119

MD 140 Bridge No. 1006500 over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

View West from East bank of old stone
'bridge abutment and the 1942 USGS
Stream Gauge House

14/27



F-6-119

MD 140 Bridge No 100650 over the Monocacy River
Frederick County, MD

Stacey Street

3/05/07

MD SHPO

View east of south Elevation of Bridge
No. 10065 and old road trace of the
Emmitsburg-Taneytown Pike

15/27



F-6-119

MD 140 Bridge No. 10065 over the Monocacy River
Frederick County, MD

Stacey Street

3/05/07

MD SHPO

View East of South Elevation of Bridge
No. 10065

16/27



F-6-119

MD 140 Bridge No. 1006500 over the Monocacy River
Frederick County, MD

Stacey Streett

3/05/07

MD SHPO

South Elevation, View NE from West bank

17/27



F-6-119

MD 140 Bridge No. 100650 over the Monocacy River

Frederick County, MD

Stacey Sineeth

3/05/07

MD SHPO

Tiebolts and profile of bullnoses on South
Elevation, view NE

18/27



F-6-119

MD 140 Bridge No. 10065⁰⁰ over the Monocacy River
Frederick County, MD

Stacey Streett

3/05/07

MD SHPO

View NE of old Emmitsburg-Taneytown Pike
road trace to West Approach of old bridge
crossing, and the South Elevation of the
1942 USGS Stream Gauge Station

19/27



F-6-119

MD 140 Bridge No. 100650 over the Monocacy River
Frederick County, MD

Stacey Sineath

3/05/07

MD SHPO

South Elevation of the USGS Stream Gauge
Monitoring Station on West bank of Monocacy
River, south of Bridge No. 10065, View East

20/27



F-6-119

MD 140 Bridge No 10065 over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

View south from west bank (south of Bridge No. 10065)
of old stone abutment from earlier bridge and
the 1942 USGS Stream Gauge Monitoring Station

21/27



F-6-119

MD 140 Bridge No. 100650 over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

Close-up view of old stone abutment from
earlier bridge on west bank, south of Bridge
No. 10065

22/27



F-6-119

MD 140 Bridge No. 100650⁰⁰ over the Monocacy River
Frederick County, MD

Stacey Street

3/05/07

MD SHPO

Close-up view to East from top of old stone
bridge abutment on West bank

23/27



F-6-119

MD 140 Bridge No. 100650 over the Monocacy River

Frederick County, MD

Stacey Streett

3/05/07

MD SHPC

View NE of south elevation, from the 1942
USGS Stream Gauge Monitoring Station on the
west bank of the Monocacy River

24/27



F-6-119

MD 140 Bridge No. 100650⁰⁰ over the Monocacy River

Frederick County, MD

Stacey Street

3/05/07

MD SHPO

View NE of East half of South Elevation
from the 1942-USGS Stream-Gauge Monitoring
Station on the West bank of the Monocacy River

25/27



F-6-119

MD 140 Bridge No. 100650 over the Monocacy River
Frederick County, MD

Stacey Street

3/05/07

MD SHPO

Arches and Spandrels on South Elevation

View NW from West bank.

26/27



F-6-119

MD 140 Bridge No. 1006500 over the Monocacy River
Frederick County, MD

Stacey Street

3/05/07

MD SHPO

Road trace of the old Emmitsburg-Taneytown
Pike south of MD 140, west of Bridge No. 10065,
View NW

27/27